



IMMEDIATE RESPONSE ACTION PLAN

**515 SOMERVILLE AVENUE
RTN 3-36373**

SOMERVILLE, MASSACHUSETTS

JULY 24, 2020

Prepared For:

Massachusetts Department of Environmental Protection
205B Lowell Street
Wilmington, MA 01887

On Behalf Of:

YEM Somerville Ave, LLC
425 Boylston Street
Boston, MA 02143

2269 Massachusetts Avenue
Cambridge, MA 02140
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(617) 868-1420

PROJECT NO. 6735



July 24, 2020

Massachusetts Department of Environmental Protection
205B Lowell Street
Wilmington, MA 01887

Attention: Bureau of Waste Site Cleanup - Northeast Regional Office

Reference: 515 Somerville Avenue, Somerville, Massachusetts;
Immediate Response Action (IRA) Plan; RTN 3-36373

Ladies and Gentlemen:

Enclosed herewith is an Immediate Response Action (IRA) Plan for the Release Tracking Number (RTN) 3-36373 site, which is associated with the 515 Somerville Avenue property in Somerville, Massachusetts (the "subject site"). Refer to the Project Location Plan (**Figure 1**) for the general site locus.

This IRA Plan was prepared on behalf of YEM Somerville Ave, LLC, which is the entity conducting the response actions on the release site. This report is subject to the limitations contained in **Appendix A**.

The subject site located at 515 Somerville Avenue is currently being redeveloped into a 6-story hotel building with a one level ventilated below-grade parking garage. During excavation for the proposed building foundation, a previously unknown underground storage tank (UST) that was predominantly filled with concrete was encountered at the northwestern corner of the subject site. Upon removal of the tank on July 9, 2020, evidence of petroleum contamination was detected in soil which triggered a 72-hour reporting condition pursuant to Section 40.0313(2) of the Massachusetts Contingency Plan (MCP). Subsequently, the DEP assigned RTN 3-36373 to the release site.

ELIGIBLE PERSON PERFORMING RESPONSE ACTIONS

YEM Somerville Ave, LLC has assumed responsibility for performing the IRA as an Eligible Person as defined by M.G.L. 21E s.2. The contact information is as follows:

YEM Somerville Ave, LLC
425 Boylston Street
Boston, Massachusetts 02116
Contact: Mr. Jordan Warshaw, Authorized Signatory
Tel: 617-851-9995

SITE CONDITIONS

Fronting onto Somerville Avenue to the south, the approximate 47,000 square-foot subject site is bounded by Laurel Street to the east, residential properties to the north and



northwest, and commercial properties to the southwest. Currently, the subject site is an active construction site, the perimeter of which is fenced.

The redevelopment of the subject site includes the construction of a 6-story hotel building with a one level ventilated below-grade parking garage. With a footprint of approximately 22,000 square-feet in area, the proposed building will occupy the southern portion of the subject site. Excavation to construct the proposed building foundation will extend to approximately 12 feet below ground surface and will be performed within a continuous interlocking sheet pile wall. Currently, the sheet pile wall has been installed around the perimeter of the proposed building footprint and construction of the building foundation and below-grade parking level is on-going.

The area that is subject to the IRA is located within the northwestern corner of the subject site. As part of site redevelopment activities, a concrete vehicular access ramp to the ventilated below grade parking garage will occupy the area that is subject to the IRA. The limits of the subject site and the approximate area subject to the IRA are shown on the attached **Figures 2 and 3**.

SURROUNDING RECEPTORS

The release site is located within an active construction site, the perimeter of which is fenced. Currently the area subject to the IRA is covered by polyethylene sheeting. Residential and commercial properties abut the subject site to the north and west, respectively.

Based on an online edition of the Massachusetts Geographic Information Systems DEP Priority Resources Map, the release site is not located within the boundaries of a Potentially Productive Aquifer, Zone II, or Interim Wellhead Protection Area as defined by the Massachusetts DEP. Further, there are no public or private drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the release. There are no water bodies or wetland areas on the release site. No areas designated as solid waste sites (landfills) are noted as being located within 1,000 feet of the site. Conway Park, a Protected Open Space, is located approximately 170 feet to the southwest of the subject site.

Based on the above, the MCP groundwater reporting category RCGW-2 is considered applicable to the release site. In addition, based on the above, and pursuant to the provisions contained in the MCP, reporting groundwater category RCGW-1 is not applicable to the release site. Given that the release is located within a residential area, reporting soil category RCS-1 is considered applicable to the release site.



SITE HISTORY

Reportedly, the subject site was originally developed around 1900 at which time it was occupied by several residences. From 1924 to 1950, the central portion of the subject site was developed with a commercial building which was occupied by an automotive repair shop that also dispensed gasoline, which was contained in several underground storage tanks (USTs). During this time period, the eastern and western portions of the subject site remained residential.

From 1950 to 1972, the above referenced former commercial building was occupied by the Eastern Overall Company, a uniform supply and cleaning company. According to records pertaining to this company's operations at a previous location, Stoddard solvent was used to clean clothing and other textiles. During this time period, additional USTs were installed at the northwestern portion of the subject site which had contained fuel oil and Stoddard solvent for cleaning the uniforms.

From 1972 to 2002, the former commercial building was used for cutting and seaming textile materials to manufacture sports apparel. During this time period, the former residential dwellings were demolished and converted to parking and the known USTs present at the subject site were reported to have been abandoned in-place. Subsequently, as discussed below, these USTs were removed off-site as part of response actions that were completed in 2009.

REGULATORY HISTORY

Over the past 30 years, subsurface assessment activities were completed by others which identified releases of oil and/or hazardous materials at the subject site. As a result, Release Tracking Numbers (RTNs) 3-23606, 3-28548, 3-28546, 3-28545, and 3-04350 have been assigned to the subject site, each of which has achieved a Permanent Solution (i.e. regulatory closure) under the MCP. While a majority of the releases were attributable to former USTs which have since been removed off-site, a release of asbestos containing materials (ACM) was identified in soil at the northwestern portion of the project site which was managed under RTN 3-23606 for which a Class A-3 Response Action Outcome (RAO) Statement was filed in 2009.

According to MCP reports prepared by others, response actions were completed at the project site on behalf of the previous site owner which included the removal of up to six (6) USTs which had contained gasoline, fuel oil, hydraulic oil, and Stoddard solvent as well as small quantities of contaminated soil which had surrounded the former USTs. The following is a discussion of the RTNs that pertains to the removal of the USTs:

- RTN 3-04350 pertains to a release of petroleum hydrocarbons, lead, PAHs in soil and petroleum hydrocarbons and volatile organic compounds (VOCs) in groundwater. The contaminants of concern were identified during a June 1990 due diligence assessment during which three (3) USTs were identified. A 1,000-gallon gasoline



UST which reportedly had been filled with concrete in 1992 was identified in the western portion of the subject site. Two (2) 5,000-gallon USTs which previously contained fuel oil and Stoddard solvent were identified in the northwestern portion of the subject site. The 5,000-gallon USTs were reportedly filled with concrete prior to 1992. In 1993, an IRA was performed during which approximately 77.86 tons of impacted soil were excavated and recycled off-site. Following the response actions and based on a Method 3 Risk Characterization, a Class A-2 Response Action Outcome (RAO) was submitted on November 14, 1995. The three (3) USTs were subsequently removed off-site on June 9, 2009.

- RTN 3-28545 pertains to a release of approximately 20 gallons of hydraulic oil from a 100-gallon UST in the northwestern portion of the subject site which was ruptured during demolition of the previously existing building. An IRA Plan for response actions was submitted to the MassDEP on September 3, 2009. IRA Status Reports were subsequently filed in December 2009, July 2010 and January 2011. A Phase I Initial Site Investigation (ISI) Report and Tier II Classification submittal was filed with the MassDEP on June 9, 2010. A combined IRA Completion Statement and Class A-2 RAO Statement was filed for this release on July 1, 2011. According to these reports prepared by others, the former UST was removed and properly disposed of off-site in June 2009.
- RTN 3-28546 pertains to a release of Stoddard solvent identified during removal of the two (2) 5,000-gallon USTs identified during the June 1990 due diligence assessment. An IRA Plan, the scope of which included the cleaning and removal of the former USTs as well as the excavation and removal of impacted soil, was submitted to the MassDEP on September 3, 2009. IRA Status Reports were submitted in December 2009, July 2010, and January 2011. A Phase I ISI Report and Tier Classification submittal was filed with the MassDEP on June 9, 2010. A combined IRA Completion Statement and Class A-2 RAO Statement relative to this release was filed on July 1, 2011. As mentioned above, the two (2) 5,000-gallon USTs were removed on June 9, 2009.
- RTN 3-28548 pertains to two (2) 1,000-gallon gasoline USTs identified in the southern portion of the subject site. The USTs had previously been closed-in-place. When being removed from the subject site, the USTs were opened and allowed to remain uncontrolled overnight, constituting a 2-hour reporting condition. An IRA Plan for the removal of the tanks and impacted soil was submitted to the MassDEP on September 3, 2009. IRA Status Reports were submitted on December 31, 2009, June 29, 2010, and January 3, 2011, with an IRA Completion Report submitted February 24, 2011. The USTs were removed from the subject site on June 10 and 11, 2009. Subsequently, a Class A-2 RAO Statement relative to this release was filed on June 6, 2011.

The subject site is also associated with RTNs 3-23606 and 3-36184. RTN 3-23606 pertains to a release of petroleum hydrocarbons, PAHs, and lead in soil and groundwater across the subject site. This RTN also applies to an area in the northwestern portion of the subject site



that was determined to contain ACM. According to MCP reports prepared by others, the ACM is attributable to floor tile from a former building that was located at that portion of the site. While some of the ACM affected soil was excavated and removed off-site as part of MCP response actions, the remaining ACM was covered by a 3-foot layer of clean soil and an Activity and Use Limitation (AUL) was recorded for the localized area at the northwestern portion of the property. Reportedly, additional soil testing was performed across the subject site at the time of the response actions which did not identify the presence of ACM outside the area of remediation and AUL. Furthermore, McPhail obtained additional samples of fill material from locations adjacent to the AUL area for ACM analysis. The results of the laboratory analysis did not detect the presence of ACM.

As a result of the above referenced response actions, the results of assessment activities and implementation of the AUL, Permanent Solution Statements were filed on behalf of the previous site owner for the historical releases which indicate a Condition of No Significant Risk exists at the project site. The AUL restricts the management and handling of the ACM impacted soil as well as maintains the thickness of clean soil covering the area affected by ACM at the northwestern portion of the subject site.

More recently, a subsurface exploration program was completed by Clean Properties, Inc. in November 2019 which detected concentrations of PCBs in excess of the RCS-1 reporting threshold of 1 milligram per kilogram (mg/kg) at the eastern portion of the project site. Further assessment of the release indicates that the Reportable Concentrations of PCBs are localized to the eastern portion of the subject site at a depth range of 0 to 9 feet below ground surface. Within this layer of affected fill material, the maximum detected concentration of PCBs is 1.9 mg/kg. A Release Notification Form for the PCB release was submitted to the DEP on March 4, 2020, to which Release Tracking Number (RTN) 3-36184 was assigned.

On March 17, 2020, the construction RAM Plan for the site was submitted to the DEP under RTNs 3-36184 and 3-23606. The objective of the RAM is to excavate and manage the off-site disposal of fill material which has been affected by the release of PCBs documented under RTN 3-36184. In addition, the RAM will include the replacement of the upper 1.5 feet of clean soil cap material within the RTN 3-23606 AUL area with a 1-foot thickness of subbase material covered by 3.5 inches of bituminous asphalt. Finally, the RAM Plan included contingencies for encountering unanticipated affected soils and underground storage tanks (USTs) or other similar containers.

As indicated in the RAM Status Report dated July 16, 2020, the PCB affected soils to which RTN 3-36184 has been assigned have been excavated from within Cell 10 and removed off-site.



IRA CONDITION ENCOUNTERED

On June 23, 2020, during bulk excavation activities at the northwestern corner of the subject site, a UST was encountered approximately 3 feet below ground surface at about Elevation +20.7. Specifically, the UST was encountered within the eastern portion of grid cell 1 and measured approximately 6 feet in diameter by 26 feet in length. The approximate location of the UST is shown on **Figures 2** and **3**.

At the time it was encountered, the southern and eastern sidewalls of the tank were exposed to its spring line. Headspace screening and visual observations of soil samples from adjacent to the exposed sidewalls did not identify evidence of a release. Sounding of the tank suggested that the tank was filled with concrete/sand. Further excavation activities within the immediate vicinity of the UST were suspended and BEC was retained to procure the necessary UST removal permits from the City of Somerville, and to clean and remove the tank.

Upon BEC's initial arrival to the site on June 25, 2020, the remaining sidewalls (north and west) were exposed to the tank's spring line. At that time, a sample of soil was obtained at the spring line adjacent to each sidewall located at Elevation +17. The four discrete samples, identified as UST-S, UST-N, UST-E, and UST-W, were screened for the presence of total volatile organic compounds (TVOC). Results of the headspace screening identified TVOC concentrations ranging from 0.1 parts per million (ppm) up to 0.8 ppm. The results of the headspace screening are summarized in **Table 1**. Pursuant to the provisions contained in DEP Policy #WSC-402-96 entitled "Commonwealth of Massachusetts Underground Storage Tank Closure Assessment Manual," the four sidewall samples were composited and submitted for laboratory analysis for the presence of extractable petroleum hydrocarbons with target PAHs. The discrete sample exhibiting the highest headspace (UST-S) was submitted for the laboratory analysis for the presence of volatile petroleum hydrocarbons (VPH) with target VOCs. As summarized in **Table 2**, the results of the laboratory analysis did not indicate concentrations of EPH, VPH, or VOC in excess of the applicable RCS-1 reporting thresholds.

On July 8, 2020, BEC commenced with cleaning and removal of the tank contents. Subsequently over a 2-day period, approximately 100 gallons of oily water was pumped from the tank and placed into 55-gallon drums. In addition, approximately 20 cubic yards of concrete was removed from within the tank and placed on top of and covered with polyethylene sheeting.

A sample of oily water from the tank was submitted by BEC for analysis for the presence of VOCs, PCBs, total petroleum hydrocarbons (TPH), RCRA-8 metals, and flashpoint. The results of the analysis did not detect concentrations of VOCs or PCBs. TPH was detected at a concentration of 13 milligrams per liter (mg/L). RCRA-8 metals were detected at low levels, with the exception of selenium which was not detected above the laboratory detection limits. The laboratory analytical reports for the water from the tank can be found in **Appendix C**.



Following excavation, the UST was placed on top of and covered with polyethylene sheeting. Soil adjacent to the tank that was excavated when removing the tank was stockpiled on top of and covered with polyethylene sheeting. The area of the tank grave was similar to the dimensions of the tank, the bottom of which was located at approximately Elevation +14.7.

On July 9, 2020, BEC commenced the removal of the UST which was monitored by McPhail personnel. Pursuant to the provisions contained in DEP Policy #WSC-402-96, discrete samples of soil were obtained from the base of the tank grave and screened for the presence of TVOC. Results of the headspace screening identified TVOC concentrations ranging from 140 ppm to 4,100 ppm which exceed the DEP reporting threshold of 100 ppm. Pursuant to Section 30.0313(2) of the MCP, on July 10, 2020 oral notification of this 72-hour reporting condition was given to the DEP to which RTN 3-36373 was assigned. In addition, the DEP approved IRA activities which included the removal of up to 300 cubic yards of contaminated soil and management, treatment, and off-site discharge of treated groundwater that may be encountered during the IRA excavation activities under the existing MWRA permit issued for the subject site.

IRA ASSESSMENT

Previous Assessment Activities

Over the past 30 years, subsurface assessment activities have been completed at the subject site by others to evaluate the above referenced historical releases as well as by McPhail to characterize in-situ soil for off-site removal. These assessment activities included the analysis of soil and groundwater samples which were obtained from soil borings, monitoring wells as well as test pits and hand explorations. While documented in more detail in the Permanent Solution Statements that have been previously prepared for the historical RTNs, the results of the soil and groundwater testing indicate that a Condition of No Significant Risk exists at the subject site.

Of the historical explorations that were completed across the subject site, borings AE-109, AE-114, AE-115, AE-222, and SH-2, were located within the immediate vicinity of the UST. Soil samples collected from these explorations were analyzed for the presence of VOCs, VPH, EPH and PAHs which are considered to be Contaminants of Concern associated with Stoddard Solvent, fuel oil and gasoline (the former contents of the USTs). The results of this historical soil testing were utilized in the Method 3 Risk Characterization contained in the Permanent Solution Statement that was prepared for the above referenced historical RTNs which concluded that a Condition of No Significant Risk exists at the subject site.

Additionally, more recent soil testing conducted by McPhail and Clean Properties Inc. from explorations CP-9, CP-10, CP-11, and CP-20 and test pits TP-7, TP-101, TP-102, TP-103, and TP-104 that were located within the immediate of the former UST indicated concentrations of VOCs, VPH, EPH, and PAHs which are similar to those used in the previously completed Method 3 Risk Characterization.



Assessment of UST Grave

On June 23, 2020, a representative of McPhail obtained soil samples from the sidewalls of the tank grave. The sidewall samples consisted of fill material which were obtained from below the spring line of the tank. Subsequently, on July 16, 2020, following removal of the UST, a representative of McPhail obtained soil samples from the base of the tank grave excavation. The location of each sample is shown on **Figure 3**.

In general, the analytical results of the sample obtained from below the spring line of the removed tank were consistent with or below the historical results of analysis of soil samples in the vicinity of the UST. Additional soil testing was performed on a sample that was obtained 10 feet to the south of the tank at about Elevation +12.0, the results of which have not yet been received.

Headspace Screening

The headspace of each sample was screened for the presence of TVOCs using a Mini-Rae 3000 photoionization detector. The headspace screening was performed in accordance with DEP's "Jar Headspace Analytical Screening Procedure," Attachment II to the Interim Remediation Waste Management Policy for Petroleum Contaminated Soils, #WSC-94-400. Results of the headspace screening of the sidewall samples identified TVOC concentrations ranging from 0.0 to 0.5 ppm. Results of the headspace screening of the bottom samples identified TVOC concentrations ranging from 140 ppm to 4,100 ppm. The headspace screening results are summarized in **Table 1**.

Soil Testing – Limits of Tank Grave Excavation

Pursuant to the provisions contained in DEP Policy #WSC-402-96 entitled "Commonwealth of Massachusetts, Underground Storage Tank Closure Assessment Manual", the samples of soil that were obtained from the limits of the tank grave excavation were submitted for laboratory analysis for the presence of extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAH) analytes and volatile petroleum hydrocarbons (VPH) with target VOC analytes. The results are summarized on the enclosed **Table 2**. Laboratory analytical data is included in **Appendix B**.

In summary, concentrations of EPH and VPH were not detected above the applicable Method 1 S-1/GW-2 or S-1/GW-2 risk characterization standards.

REMEDIATION WASTE

While considered Containerized Waste and not Remediation Waste an estimated 100 gallons of oily water that was pumped from the tank and placed into 55-gallon drums will be transported off-site to the appropriated receiving facility under a Hazardous Waste Manifest. In addition, the approximately 20 cubic yards of concrete that was removed from within the



tank will be transported off-site under Hazardous Waste Manifests to the appropriate receiving facility.

Off-site re-use and disposal of contaminated soils are governed by the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000. In general, soils exhibiting contaminant concentrations above the RCS-1 reportable levels and/or background levels for natural soil contained in the MCP are considered regulated for off-site disposal and require the use of either a Bill of Lading, Material Shipping Record or Uniform Hazardous Waste Manifest.

Based upon testing performed to-date, it is estimated that up to 100 cubic yards of contaminated soil will be excavated and removed off-site under the IRA. While additional soil pre-characterization analysis will be necessary, it is anticipated that excavated material may be recycled off-site at an in-state asphalt batch plant.

ENVIRONMENTAL MONITORING PLAN

The above scope of IRA work will be performed under the monitoring of McPhail. An environmental monitoring program including screening of ambient air for the presence of TVOCs along the perimeter of the subject site will be performed using a Mini-Rae 3000 or equivalent photoionization detector.

The action level at which mitigative measures are to be implemented is 10 ppm TVOCs above background. If field perimeter readings meet or exceed the above referenced action levels for more than 15 minutes at a time, mitigative measures are to be implemented. We note that action levels have not yet exceeded during performance of the IRA.

In accordance with the above referenced RAM Plan for the subject site, McPhail is also performing dust monitoring at the subject site during excavation. The monitoring for airborne particulates is performed using two (2) tripod-mounted Dustrak II aerosol monitors that are located along the perimeter of the project site. To date, there have been no exceedances of the action level for dust of 0.15 milligrams per meter³ (mg/m³) over a 15-minute duration as established in the RAM Plan.

IRA TO BE PERFORMED

On July 9, 2020, the subject site was informed by DEP that implementation of Public Involvement activities is required pursuant to Sections 40.0447 and 40.1405 of the MCP. According to discussions with the DEP, Public Involvement activities are required given that the historical RTN 3-23606 was designated as Public Involvement Plan (PIP) site in 2005. Although Section 40.1405(7)(a) indicates that designation of a PIP site shall terminate following implementation of the PIP activities applicable to a Permanent Solution Statement, which was filed in 2011 for RTN 3-23606, the DEP has specified Public Involvement activities are required. As a result, Public Involvement Activities related to the IRA will be implemented shortly after the submittal of this IRA Plan.



DEP Bureau of Waste Site Cleanup
RTN 3-36373
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Pursuant to the Section 14.1403 of the MCP, IRA activities will be performed upon completion of the Public Involvement activities. The IRA activities will consist of the excavation and off-site removal of contaminated soils within the immediate vicinity of the UST located below Elevation +14.7 corresponding to the bottom of the tank grave. During the Public Involvement notification and comment period, assessment activities will be performed to further define the extent of contaminated soil that will be subject to the IRA excavation.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the enclosed, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

A handwritten signature in blue ink, appearing to read 'Caitrin R. Foley'.

Caitrin R. Foley

A handwritten signature in blue ink, appearing to read 'William J. Burns'.

William J. Burns, L.S.P.

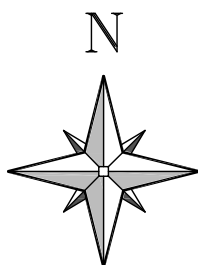
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CRF/wjb

FIGURE I



Geotechnical and
Geoenvironmental Engineers
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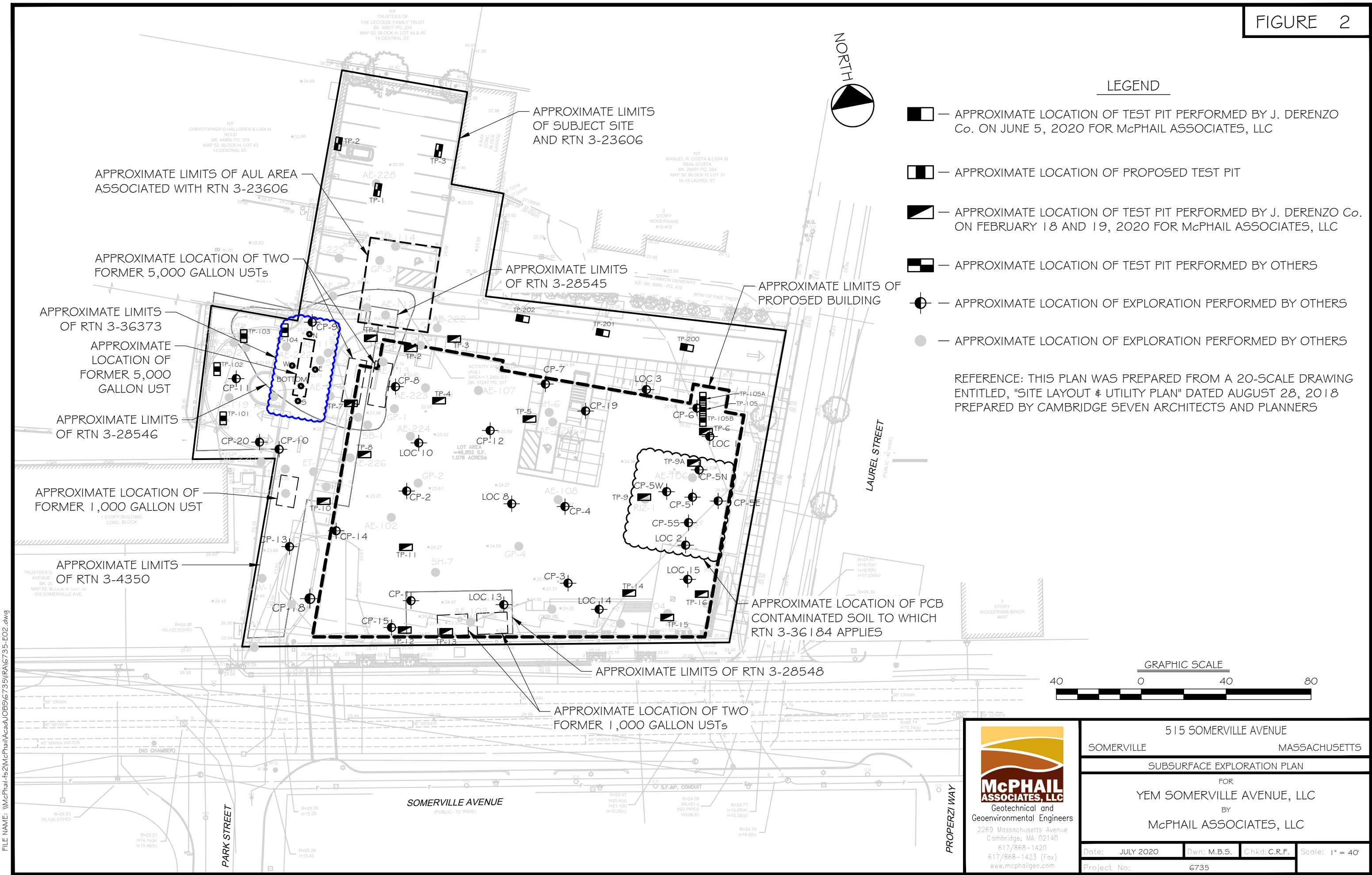
SCALE 1:25,000

PROJECT LOCATION PLAN

515 SOMERVILLE AVENUE

SOMERVILLE

MASSACHUSETTS



FILE NAME: \\McPhail-1s2\McPhail\Acad\JOB6735\515A\6735-EO2.dwg

FIGURE 3

LEGEND

- APPROXIMATE LOCATION OF TEST PIT PERFORMED BY J. DERENZO Co. ON JUNE 5, 2020 FOR McPHAIL ASSOCIATES, LLC
- APPROXIMATE LOCATION OF TEST PIT PERFORMED BY J. DERENZO Co. ON MARCH 2, 2020 FOR McPHAIL ASSOCIATES, LLC
- APPROXIMATE LOCATION OF TEST PIT PERFORMED BY J. DERENZO Co. ON FEBRUARY 18 AND 19, 2020 FOR McPHAIL ASSOCIATES, LLC
- APPROXIMATE LOCATION OF TEST PIT PERFORMED BY OTHERS
- APPROXIMATE LOCATION OF EXPLORATION PERFORMED BY OTHERS
- APPROXIMATE LOCATION OF EXPLORATION PERFORMED BY OTHERS

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED, "SITE LAYOUT & UTILITY PLAN" DATED AUGUST 28, 2018 PREPARED BY CAMBRIDGE SEVEN ARCHITECTS AND PLANNERS



515 SOMERVILLE AVENUE			
SOMERVILLE		MASSACHUSETTS	
SOIL MANAGEMENT PLAN			
FOR			
YEM 515 SOMERVILLE AVE, LLC			
BY			
McPHAIL ASSOCIATES, LLC			
Date:	JULY 2020	Dwn: M.B.S.	Chkd: W.J.B.
Project No:	6735	Scale: 1" = 20'	

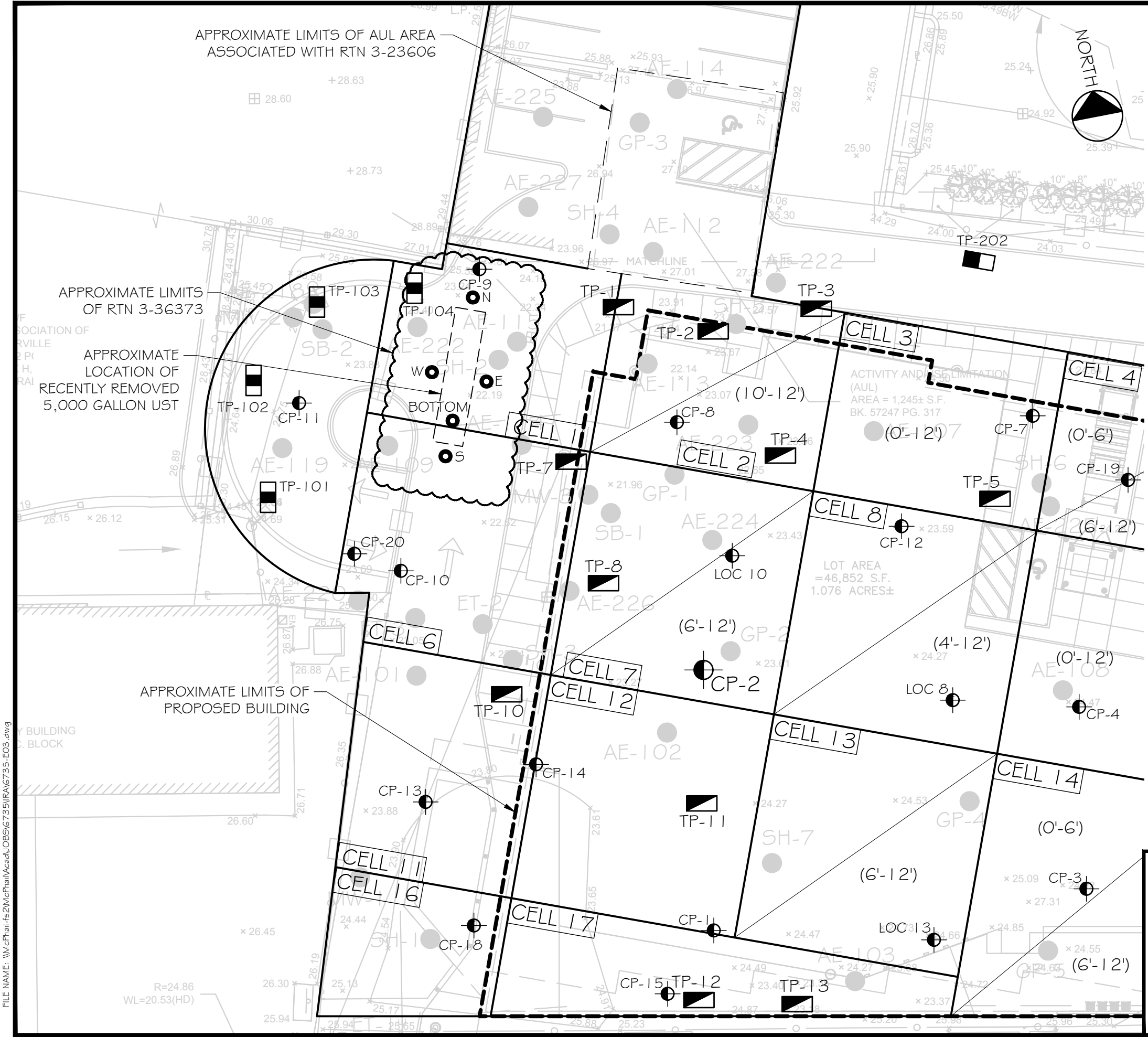


TABLE 1
PID HEADSPACE READINGS - TOTAL VOLATILE ORGANIC COMPOUNDS

RTN 3-36373
515 Somerville Avenue
Somerville, MA
Project No. 6735

EXPLORATION NO.	SAMPLE NO.	SAMPLE DEPTH	SAMPLE TYPE	PID READING (ppm)	VISUAL/OLFACTORY PETROLEUM EVIDENCE
UST-N		6	FILL	0.0	NONE
UST-S		6	FILL	0.5	NONE
UST-W		6	FILL	0.0	NONE
UST-E		6	FILL	0.1	NONE
Bottom-1		9	FILL	139.0	Odor
Bottom-2		9	FILL	4100.0	Odor

TABLE 2
LABORATORY ANALYTICAL RESULTS - SOIL
(UST)
RTN 3-36373
515 Somerville Avenue; Somerville, MA
Project No. 6735

LOCATION	Method 1 S-1/GW-2	Method 1 S-1/GW-3	UST COMP	UST-S	UST-B2
SAMPLING DATE			6/25/2020	6/25/2020	7/16/2020
LAB SAMPLE ID			L2027121-01	L2027121-02	L2030186-01
SAMPLE TYPE			Fill	Fill	Fill
ELEVATION			17	17	14
General Chemistry					
Solids, Total (%)			92.2	94.8	93.1
Extractable Petroleum Hydrocarbons (mg/kg)					
C9-C18 Aliphatics	1000	1000	12.1	-	13.6
C19-C36 Aliphatics	3000	3000	23.2	-	30.7
C11-C22 Aromatics			ND(6.97)	-	10.5
C11-C22 Aromatics, Adjusted	1000	1000	ND(6.97)	-	10.5
Naphthalene	20	500	ND(0.348)	-	ND(0.354)
2-Methylnaphthalene	80	300	ND(0.348)	-	ND(0.354)
Acenaphthylene	600	10	ND(0.348)	-	ND(0.354)
Acenaphthene	1000	1000	ND(0.348)	-	ND(0.354)
Fluorene	1000	1000	ND(0.348)	-	ND(0.354)
Phenanthrene	500	500	ND(0.348)	-	ND(0.354)
Anthracene	1000	1000	ND(0.348)	-	ND(0.354)
Fluoranthene	1000	1000	ND(0.348)	-	ND(0.354)
Pyrene	1000	1000	ND(0.348)	-	ND(0.354)
Benzo(a)anthracene	7	7	ND(0.348)	-	ND(0.354)
Chrysene	70	70	ND(0.348)	-	ND(0.354)
Benzo(b)fluoranthene	7	7	ND(0.348)	-	ND(0.354)
Benzo(k)fluoranthene	70	70	ND(0.348)	-	ND(0.354)
Benzo(a)pyrene	2	2	ND(0.348)	-	ND(0.354)
Indeno(1,2,3-cd)Pyrene	7	7	ND(0.348)	-	ND(0.354)
Dibenzo(a,h)anthracene	0.7	0.7	ND(0.348)	-	ND(0.354)
Benzo(ghi)perylene	1000	1000	ND(0.348)	-	ND(0.354)
Volatile Petroleum Hydrocarbons (mg/kg)					
C9-C10 Aromatics	100	100	-	38.5	17
C5-C8 Aliphatics, Adjusted	100	100	-	ND(9.49)	ND(5.43)
C9-C12 Aliphatics, Adjusted	1000	1000	-	69.7	9.25
Benzene	40	40	-	ND(0.19)	ND(0.108)
Toluene	500	500	-	ND(0.19)	ND(0.108)
Ethylbenzene	500	500	-	ND(0.19)	ND(0.108)
p/m-Xylene	100	500	-	ND(0.19)	ND(0.108)
o-Xylene	100	500	-	0.838	ND(0.108)
Methyl tert butyl ether	100	100	-	ND(0.095)	ND(0.054)
Naphthalene	20	500	-	ND(0.38)	ND(0.217)

ND-not detected in excess of the laboratory reporting limit in ()



APPENDIX A:

LIMITATIONS



LIMITATIONS

The above observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the subsurface explorations become evident in the future, it may be necessary to reevaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical test data obtained from analysis of a limited number of groundwater and indoor air samples and are contingent upon their validity. These data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used on-site, and other factors.

The purpose of this report was to document activities of an Immediate Response Action (IRA) Plan for the release at 533-541 Commonwealth Avenue in Boston, Massachusetts with regard to the release of hazardous material or oil, as defined in Massachusetts General Laws Chapter 21E and the Massachusetts Contingency Plan 310 CMR 40.0000, referenced under RTN 3-35921.

No attempt was made to check on the compliance of present or past owners of the site with federal, state or local laws and regulations except as otherwise documented herein. McPhail Associates, LLC did not perform testing or analyses to determine the presence or concentration of materials not referenced in this report.

This study and report have been prepared on behalf of and for the exclusive use of YEM Somerville Ave, LLC solely for the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any party nor used in whole or in part by any party, other than the MA DEP, without the prior written consent of McPhail Associates, LLC.



APPENDIX B:
SOIL ANALYTICAL DATA



ANALYTICAL REPORT

Lab Number:	L2030186
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	CAMBRIA HOTEL
Project Number:	6735.9.00
Report Date:	07/20/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2030186-01	UST-B2	FILL	SOMERVILLE, MA	07/16/20 13:15	07/16/20

Project Name: CAMBRIA HOTEL

Lab Number: L2030186

Project Number: 6735.9.00

Report Date: 07/20/20

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

Case Narrative (continued)

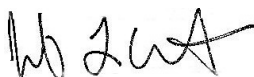
MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Jennifer L Clements

Title: Technical Director/Representative

Date: 07/20/20

QC OUTLIER SUMMARY REPORT**Project Name:** CAMBRIA HOTEL**Lab Number:** L2030186**Project Number:** 6735.9.00**Report Date:** 07/20/20

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: CAMBRIA HOTEL**Lab Number:** L2030186**Project Number:** 6735.9.00**Report Date:** 07/20/20**SAMPLE RESULTS**

Lab ID: L2030186-01
 Client ID: UST-B2
 Sample Location: SOMERVILLE, MA

Date Collected: 07/16/20 13:15
 Date Received: 07/16/20
 Field Prep: Not Specified

Sample Depth: 12
 Matrix: Fill
 Analytical Method: 131, VPH-18-2.1
 Analytical Date: 07/19/20 00:12
 Analyst: KJD
 Percent Solids: 93%

Trap: EST, Carboxen 1000&1001**Analytical Column:** Restek, RTX-502.2, 105m, 0.53ID, 3um**Quality Control Information**

Condition of sample received:

Satisfactory

Sample Temperature upon receipt:

Received on Ice

Were samples received in methanol?

Covering the Soil

Methanol ratio:

1:1 +/- 25%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	ND		mg/kg	5.43	--	1
C9-C12 Aliphatics	26.2		mg/kg	5.43	--	1
C9-C10 Aromatics	17.0		mg/kg	5.43	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.43	--	1
C9-C12 Aliphatics, Adjusted	9.25		mg/kg	5.43	--	1
Benzene	ND		mg/kg	0.108	--	1
Toluene	ND		mg/kg	0.108	--	1
Ethylbenzene	ND		mg/kg	0.108	--	1
p/m-Xylene	ND		mg/kg	0.108	--	1
o-Xylene	ND		mg/kg	0.108	--	1
Methyl tert butyl ether	ND		mg/kg	0.054	--	1
Naphthalene	ND		mg/kg	0.217	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	120		70-130
2,5-Dibromotoluene-FID	114		70-130

Project Name: CAMBRIA HOTEL**Lab Number:** L2030186**Project Number:** 6735.9.00**Report Date:** 07/20/20**SAMPLE RESULTS**

Lab ID: L2030186-01
 Client ID: UST-B2
 Sample Location: SOMERVILLE, MA

Date Collected: 07/16/20 13:15
 Date Received: 07/16/20
 Field Prep: Not Specified

Sample Depth: 12
 Matrix: Fill
 Analytical Method: 135,EPH-19-2.1
 Analytical Date: 07/19/20 15:48
 Analyst: SC
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/17/20 14:17
 Cleanup Method1: EPH-04-1
 Cleanup Date1: 07/17/20

Quality Control Information

Condition of sample received:
 Sample Temperature upon receipt:
 Sample Extraction method:

Satisfactory
 Received on Ice
 Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	13.6		mg/kg	7.08	--	1
C19-C36 Aliphatics	30.7		mg/kg	7.08	--	1
C11-C22 Aromatics	10.5		mg/kg	7.08	--	1
C11-C22 Aromatics, Adjusted	10.5		mg/kg	7.08	--	1
Naphthalene	ND		mg/kg	0.354	--	1
2-Methylnaphthalene	ND		mg/kg	0.354	--	1
Acenaphthylene	ND		mg/kg	0.354	--	1
Acenaphthene	ND		mg/kg	0.354	--	1
Fluorene	ND		mg/kg	0.354	--	1
Phenanthrene	ND		mg/kg	0.354	--	1
Anthracene	ND		mg/kg	0.354	--	1
Fluoranthene	ND		mg/kg	0.354	--	1
Pyrene	ND		mg/kg	0.354	--	1
Benzo(a)anthracene	ND		mg/kg	0.354	--	1
Chrysene	ND		mg/kg	0.354	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.354	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.354	--	1
Benzo(a)pyrene	ND		mg/kg	0.354	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.354	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.354	--	1
Benzo(ghi)perylene	ND		mg/kg	0.354	--	1

Project Name: CAMBRIA HOTEL**Lab Number:** L2030186**Project Number:** 6735.9.00**Report Date:** 07/20/20**SAMPLE RESULTS**

Lab ID: L2030186-01

Date Collected: 07/16/20 13:15

Client ID: UST-B2

Date Received: 07/16/20

Sample Location: SOMERVILLE, MA

Field Prep: Not Specified

Sample Depth: 12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	52		40-140
o-Terphenyl	65		40-140
2-Fluorobiphenyl	85		40-140
2-Bromonaphthalene	91		40-140

Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

Method Blank Analysis Batch Quality Control

Analytical Method: 135,EPH-19-2.1
Analytical Date: 07/19/20 14:32
Analyst: SC

Extraction Method: EPA 3546
Extraction Date: 07/17/20 14:17
Cleanup Method: EPH-04-1
Cleanup Date: 07/17/20

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1393413-1					
C9-C18 Aliphatics	ND		mg/kg	6.29	--
C19-C36 Aliphatics	ND		mg/kg	6.29	--
C11-C22 Aromatics	ND		mg/kg	6.29	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.29	--
Naphthalene	ND		mg/kg	0.315	--
2-Methylnaphthalene	ND		mg/kg	0.315	--
Acenaphthylene	ND		mg/kg	0.315	--
Acenaphthene	ND		mg/kg	0.315	--
Fluorene	ND		mg/kg	0.315	--
Phenanthrene	ND		mg/kg	0.315	--
Anthracene	ND		mg/kg	0.315	--
Fluoranthene	ND		mg/kg	0.315	--
Pyrene	ND		mg/kg	0.315	--
Benzo(a)anthracene	ND		mg/kg	0.315	--
Chrysene	ND		mg/kg	0.315	--
Benzo(b)fluoranthene	ND		mg/kg	0.315	--
Benzo(k)fluoranthene	ND		mg/kg	0.315	--
Benzo(a)pyrene	ND		mg/kg	0.315	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.315	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.315	--
Benzo(ghi)perylene	ND		mg/kg	0.315	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	63		40-140
2-Fluorobiphenyl	70		40-140
2-Bromonaphthalene	73		40-140

Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 131, VPH-18-2.1
Analytical Date: 07/18/20 17:12
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1393827-4					
C5-C8 Aliphatics	ND		mg/kg	5.00	--
C9-C12 Aliphatics	ND		mg/kg	5.00	--
C9-C10 Aromatics	ND		mg/kg	5.00	--
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.00	--
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.00	--
Benzene	ND		mg/kg	0.100	--
Toluene	ND		mg/kg	0.100	--
Ethylbenzene	ND		mg/kg	0.100	--
p/m-Xylene	ND		mg/kg	0.100	--
o-Xylene	ND		mg/kg	0.100	--
Methyl tert butyl ether	ND		mg/kg	0.050	--
Naphthalene	ND		mg/kg	0.200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	114		70-130
2,5-Dibromotoluene-FID	106		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: CAMBRIA HOTEL

Project Number: 6735.9.00

Lab Number: L2030186

Report Date: 07/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1393413-2 WG1393413-3								
C9-C18 Aliphatics	57		59		40-140	3		25
C19-C36 Aliphatics	69		71		40-140	3		25
C11-C22 Aromatics	66		68		40-140	3		25
Naphthalene	61		62		40-140	2		25
2-Methylnaphthalene	63		65		40-140	3		25
Acenaphthylene	60		62		40-140	3		25
Acenaphthene	65		67		40-140	3		25
Fluorene	64		67		40-140	5		25
Phenanthrene	64		66		40-140	3		25
Anthracene	65		67		40-140	3		25
Fluoranthene	66		70		40-140	6		25
Pyrene	64		67		40-140	5		25
Benzo(a)anthracene	63		66		40-140	5		25
Chrysene	64		66		40-140	3		25
Benzo(b)fluoranthene	70		72		40-140	3		25
Benzo(k)fluoranthene	52		54		40-140	4		25
Benzo(a)pyrene	61		64		40-140	5		25
Indeno(1,2,3-cd)Pyrene	58		60		40-140	3		25
Dibenzo(a,h)anthracene	63		64		40-140	2		25
Benzo(ghi)perylene	56		57		40-140	2		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CAMBRIA HOTEL

Project Number: 6735.9.00

Lab Number: L2030186

Report Date: 07/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1393413-2 WG1393413-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	58		59		40-140
o-Terphenyl	62		64		40-140
2-Fluorobiphenyl	77		82		40-140
2-Bromonaphthalene	81		86		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Lab Control Sample Analysis

Batch Quality Control

Project Name: CAMBRIA HOTEL

Project Number: 6735.9.00

Lab Number: L2030186

Report Date: 07/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1393827-2 WG1393827-3								
C5-C8 Aliphatics	99		102		70-130	3		25
C9-C12 Aliphatics	98		100		70-130	2		25
C9-C10 Aromatics	101		104		70-130	3		25
Benzene	104		107		70-130	3		25
Toluene	103		106		70-130	3		25
Ethylbenzene	102		104		70-130	2		25
p/m-Xylene	101		104		70-130	3		25
o-Xylene	102		104		70-130	2		25
Methyl tert butyl ether	110		112		70-130	2		25
Naphthalene	116		120		70-130	3		25
1,2,4-Trimethylbenzene	101		104		70-130	3		25
Pentane	96		98		70-130	3		25
2-Methylpentane	103		106		70-130	3		25
2,2,4-Trimethylpentane	97		100		70-130	3		25
n-Nonane	98		101		30-130	3		25
n-Decane	95		97		70-130	2		25
n-Butylcyclohexane	99		101		70-130	2		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	110		114		70-130
2,5-Dibromotoluene-FID	104		106		70-130

INORGANICS & MISCELLANEOUS

Project Name: CAMBRIA HOTEL**Project Number:** 6735.9.00**Lab Number:** L2030186**Report Date:** 07/20/20**SAMPLE RESULTS****Lab ID:** L2030186-01**Client ID:** UST-B2**Sample Location:** SOMERVILLE, MA**Date Collected:** 07/16/20 13:15**Date Received:** 07/16/20**Field Prep:** Not Specified**Sample Depth:** 12**Matrix:** Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.1		%	0.100	NA	1	-	07/17/20 10:39	121,2540G	RI



Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Serial_No:07202013:13
Lab Number: L2030186
Report Date: 07/20/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2030186-01A	Vial MeOH preserved	A	NA		4.2	Y	Absent		VPH-DELUX-18(28)
L2030186-01A1	Vial MeOH preserved	A	NA		4.2	Y	Absent		VPH-DELUX-18(28)
L2030186-01A2	Vial MeOH preserved	A	NA		4.2	Y	Absent		VPH-DELUX-18(28)
L2030186-01B	Plastic 2oz unpreserved for TS	A	NA		4.2	Y	Absent		TS(7)
L2030186-01C	Glass 500ml/16oz unpreserved	A	NA		4.2	Y	Absent		EPH-DELUX-20(14)

Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration. (DoD and NYSDEC Part 375 PFAS only.)
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



Project Name: CAMBRIA HOTEL**Lab Number:** L2030186**Project Number:** 6735.9.00**Report Date:** 07/20/20**Data Qualifiers**

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name: CAMBRIA HOTEL
Project Number: 6735.9.00

Lab Number: L2030186
Report Date: 07/20/20

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PAGE _____ OF _____

07/16/20

2030186

Project Name: Cumbria Hotel

EMAIL

☐ Same as Client info

PO #:	
-------	--

Project Location: Somerville, MA

Project #:	6735.9.20
------------	-----------

Project Manager: WJB

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due:

☐ Other State /Fed Program _____ Criteria

Email: VJB @McPhailgeo.com

☐ Run TCLP (if triggered)

Sample "Sample ID" Nomenclature: B-100, S-1

[illegible][illegible]

Preservative

Date/Time

7/16/20 1:30

PLM AAL
7/16/12

7/16/20 1330

F=Fill S=Sand
O=Organics C=Clay
N=Natural T=Till
GM=Glaciomarine
GW=Groundwater

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

DOC ID: 25185 Rev 0
(11/28/2017)



APPENDIX C:
TANK CONTENTS ANALYTICAL DATA

July 1, 2020

John Cole
Boston Environmental Corp. - Brockton, MA
338 Howard Street
Brockton, MA 02302

Project Location: 515 Somerville Ave., Somerville, MA
Client Job Number:
Project Number: BEC 19046
Laboratory Work Order Number: 20F1303

Enclosed are results of analyses for samples received by the laboratory on June 26, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kerry K. McGee". The signature is written in a cursive, flowing style.

Kerry K. McGee
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332Boston Environmental Corp. - Brockton, MA
338 Howard Street
Brockton, MA 02302
ATTN: John Cole

REPORT DATE: 7/1/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: BEC 19046

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20F1303

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 515 Somerville Ave., Somerville, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
UST-S1	20F1303-01	Water		SW-846 1010A SW-846 6020B SW-846 7470A SW-846 8082A SW-846 8100 Modified SW-846 8260C-D	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8260C-D**Qualifications:****PR-03**

Sample preserved in the laboratory, not in the field as required by the method.

Analyte & Samples(s) Qualified:

20F1303-01[UST-S1]

RL-14

Elevated reporting limit due to foaming sample matrix. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

20F1303-01[UST-S1]

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:**Chloromethane**

20F1303-01[UST-S1], B260965-BLK1, B260965-BS1, B260965-BSD1, S049793-CCV1

V-16

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

S049793-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**Bromochloromethane**

B260965-BS1, B260965-BSD1, S049793-CCV1

Bromomethane

B260965-BS1, B260965-BSD1, S049793-CCV1

Tetrachloroethylene

B260965-BS1, B260965-BSD1, S049793-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:**Bromomethane**

20F1303-01[UST-S1], B260965-BLK1, B260965-BS1, B260965-BSD1, S049793-CCV1

Chloromethane

20F1303-01[UST-S1], B260965-BLK1, B260965-BS1, B260965-BSD1, S049793-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8100 Modified

TPH (C9-C36) is quantitated against a calibration made with a diesel standard.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Sample Flags: PR-03, RL-14

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	500	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Acrylonitrile	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
tert-Amyl Methyl Ether (TAME)	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Benzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Bromobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Bromochloromethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Bromodichloromethane	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Bromoform	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Bromomethane	ND	50	µg/L	10	V-34	SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
2-Butanone (MEK)	ND	200	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
tert-Butyl Alcohol (TBA)	ND	200	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
n-Butylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
sec-Butylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
tert-Butylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Carbon Disulfide	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Carbon Tetrachloride	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Chlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Chlorodibromomethane	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Chloroethane	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Chloroform	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Chloromethane	ND	20	µg/L	10	V-05, V-34	SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
2-Chlorotoluene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
4-Chlorotoluene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2-Dibromoethane (EDB)	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Dibromomethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2-Dichlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,3-Dichlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,4-Dichlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
trans-1,4-Dichloro-2-butene	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Dichlorodifluoromethane (Freon 12)	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1-Dichloroethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2-Dichloroethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1-Dichloroethylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
cis-1,2-Dichloroethylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
trans-1,2-Dichloroethylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2-Dichloropropane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,3-Dichloropropane	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
2,2-Dichloropropane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1-Dichloropropene	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
cis-1,3-Dichloropropene	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
trans-1,3-Dichloropropene	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Diethyl Ether	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Sample Flags: PR-03, RL-14

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,4-Dioxane	ND	500	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Ethylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Hexachlorobutadiene	ND	6.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
2-Hexanone (MBK)	ND	100	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Isopropylbenzene (Cumene)	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
p-Isopropyltoluene (p-Cymene)	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Methyl Acetate	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Methyl tert-Butyl Ether (MTBE)	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Methyl Cyclohexane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Methylene Chloride	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
4-Methyl-2-pentanone (MIBK)	ND	100	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Naphthalene	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
n-Propylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Styrene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1,1,2-Tetrachloroethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1,2,2-Tetrachloroethane	ND	5.0	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Tetrachloroethylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Tetrahydrofuran	ND	100	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Toluene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2,3-Trichlorobenzene	ND	50	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2,4-Trichlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,3,5-Trichlorobenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1,1-Trichloroethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1,2-Trichloroethane	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Trichloroethylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Trichlorofluoromethane (Freon 11)	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2,3-Trichloropropane	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,2,4-Trimethylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
1,3,5-Trimethylbenzene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Vinyl Chloride	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
m+p Xylene	ND	20	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
o-Xylene	ND	10	µg/L	10		SW-846 8260C-D	6/29/20	6/29/20 15:09	LBD
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	97.6	70-130							
Toluene-d8	103	70-130							
4-Bromofluorobenzene	105	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	6/29/20	6/30/20 0:37	TG
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Decachlorobiphenyl [1]	56.9	30-150						6/30/20 0:37	
Decachlorobiphenyl [2]	61.1	30-150						6/30/20 0:37	
Tetrachloro-m-xylene [1]	76.9	30-150						6/30/20 0:37	
Tetrachloro-m-xylene [2]	82.1	30-150						6/30/20 0:37	

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Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	13	0.44	mg/L	2		SW-846 8100 Modified	6/29/20	7/1/20 14:07	RDD
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
2-Fluorobiphenyl	84.8	40-140						7/1/20 14:07	

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Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	91	0.80	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Barium	130	10	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Cadmium	1.8	0.20	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Chromium	31	1.0	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Lead	230	0.50	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Mercury	0.00032	0.00010	mg/L	1		SW-846 7470A	6/29/20	6/30/20 12:39	CJV
Selenium	ND	5.0	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH
Silver	0.79	0.20	µg/L	1		SW-846 6020B	6/29/20	6/30/20 11:19	MJH

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Project Location: 515 Somerville Ave., Somerville, M Sample Description:

Work Order: 20F1303

Date Received: 6/26/2020

Field Sample #: UST-S1

Sampled: 6/26/2020 10:45

Sample ID: 20F1303-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Flashpoint	> 212 °F		°F	1		SW-846 1010A	6/30/20	6/30/20 14:30	DJM

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Sample Extraction Data**SW-846 1010A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B261076	50.0	50.0	06/30/20

Prep Method: SW-846 3005A Analytical Method: SW-846 6020B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B260975	50.0	50.0	06/29/20

Prep Method: SW-846 7470A Prep Analytical Method: SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B260977	6.00	6.00	06/29/20

Prep Method: SW-846 3510C Analytical Method: SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B260944	380	4.00	06/29/20

Prep Method: SW-846 3510C Analytical Method: SW-846 8100 Modified

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B260935	680	0.750	06/29/20

Prep Method: SW-846 5030B Analytical Method: SW-846 8260C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20F1303-01 [UST-S1]	B260965	0.5	5.00	06/29/20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B260965 - SW-846 5030B										
Blank (B260965-BLK1)				Prepared & Analyzed: 06/29/20						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							V-34
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							V-05, V-34
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B260965 - SW-846 5030B

Blank (B260965-BLK1)

Prepared & Analyzed: 06/29/20

Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	24.7		µg/L	25.0		98.8	70-130			
Surrogate: Toluene-d8	26.2		µg/L	25.0		105	70-130			
Surrogate: 4-Bromofluorobenzene	26.1		µg/L	25.0		105	70-130			

LCS (B260965-BS1)

Prepared & Analyzed: 06/29/20

Acetone	105	50	µg/L	100		105	70-160			†
Acrylonitrile	10.1	5.0	µg/L	10.0		101	70-130			
tert-Amyl Methyl Ether (TAME)	10.0	0.50	µg/L	10.0		100	70-130			
Benzene	10.2	1.0	µg/L	10.0		102	70-130			
Bromobenzene	10.2	1.0	µg/L	10.0		102	70-130			
Bromochloromethane	12.5	1.0	µg/L	10.0		125	70-130			V-20
Bromodichloromethane	11.6	0.50	µg/L	10.0		116	70-130			
Bromoform	10.1	1.0	µg/L	10.0		101	70-130			
Bromomethane	12.5	2.0	µg/L	10.0		125	40-160			V-20, V-34 †
2-Butanone (MEK)	98.9	20	µg/L	100		98.9	40-160			†
tert-Butyl Alcohol (TBA)	101	20	µg/L	100		101	40-160			†
n-Butylbenzene	9.03	1.0	µg/L	10.0		90.3	70-130			
sec-Butylbenzene	9.04	1.0	µg/L	10.0		90.4	70-130			
tert-Butylbenzene	9.73	1.0	µg/L	10.0		97.3	70-130			
tert-Butyl Ethyl Ether (TBEE)	10.4	0.50	µg/L	10.0		104	70-130			
Carbon Disulfide	106	5.0	µg/L	100		106	70-130			
Carbon Tetrachloride	10.4	5.0	µg/L	10.0		104	70-130			
Chlorobenzene	9.82	1.0	µg/L	10.0		98.2	70-130			
Chlorodibromomethane	11.4	0.50	µg/L	10.0		114	70-130			
Chloroethane	9.87	2.0	µg/L	10.0		98.7	70-130			
Chloroform	10.8	2.0	µg/L	10.0		108	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B260965 - SW-846 5030B										
LCS (B260965-BS1)				Prepared & Analyzed: 06/29/20						
Chloromethane	6.58	2.0	µg/L	10.0		65.8	40-160			V-05, V-34 †
2-Chlorotoluene	9.36	1.0	µg/L	10.0		93.6	70-130			
4-Chlorotoluene	9.76	1.0	µg/L	10.0		97.6	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	9.96	5.0	µg/L	10.0		99.6	70-130			
1,2-Dibromoethane (EDB)	11.6	0.50	µg/L	10.0		116	70-130			
Dibromomethane	11.8	1.0	µg/L	10.0		118	70-130			
1,2-Dichlorobenzene	9.73	1.0	µg/L	10.0		97.3	70-130			
1,3-Dichlorobenzene	9.58	1.0	µg/L	10.0		95.8	70-130			
1,4-Dichlorobenzene	9.59	1.0	µg/L	10.0		95.9	70-130			
trans-1,4-Dichloro-2-butene	9.44	2.0	µg/L	10.0		94.4	70-130			
Dichlorodifluoromethane (Freon 12)	11.1	2.0	µg/L	10.0		111	40-160			†
1,1-Dichloroethane	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloroethane	12.1	1.0	µg/L	10.0		121	70-130			
1,1-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130			
cis-1,2-Dichloroethylene	11.0	1.0	µg/L	10.0		110	70-130			
trans-1,2-Dichloroethylene	10.7	1.0	µg/L	10.0		107	70-130			
1,2-Dichloropropane	10.8	1.0	µg/L	10.0		108	70-130			
1,3-Dichloropropane	11.1	0.50	µg/L	10.0		111	70-130			
2,2-Dichloropropane	10.4	1.0	µg/L	10.0		104	40-130			†
1,1-Dichloropropene	10.8	2.0	µg/L	10.0		108	70-130			
cis-1,3-Dichloropropene	10.9	0.50	µg/L	10.0		109	70-130			
trans-1,3-Dichloropropene	10.8	0.50	µg/L	10.0		108	70-130			
Diethyl Ether	10.2	2.0	µg/L	10.0		102	70-130			
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101	70-130			
1,4-Dioxane	109	50	µg/L	100		109	40-130			†
Ethylbenzene	9.40	1.0	µg/L	10.0		94.0	70-130			
Hexachlorobutadiene	11.3	0.60	µg/L	10.0		113	70-130			
2-Hexanone (MBK)	106	10	µg/L	100		106	70-160			†
Isopropylbenzene (Cumene)	9.60	1.0	µg/L	10.0		96.0	70-130			
p-Isopropyltoluene (p-Cymene)	9.66	1.0	µg/L	10.0		96.6	70-130			
Methyl Acetate	10.2	1.0	µg/L	10.0		102	70-130			
Methyl tert-Butyl Ether (MTBE)	10.3	1.0	µg/L	10.0		103	70-130			
Methyl Cyclohexane	10.9	1.0	µg/L	10.0		109	70-130			
Methylene Chloride	10.3	5.0	µg/L	10.0		103	70-130			
4-Methyl-2-pentanone (MIBK)	108	10	µg/L	100		108	70-160			†
Naphthalene	9.11	2.0	µg/L	10.0		91.1	40-130			†
n-Propylbenzene	9.43	1.0	µg/L	10.0		94.3	70-130			
Styrene	9.67	1.0	µg/L	10.0		96.7	70-130			
1,1,1,2-Tetrachloroethane	10.2	1.0	µg/L	10.0		102	70-130			
1,1,2,2-Tetrachloroethane	10.0	0.50	µg/L	10.0		100	70-130			
Tetrachloroethylene	12.0	1.0	µg/L	10.0		120	70-130			V-20
Tetrahydrofuran	10.2	10	µg/L	10.0		102	70-130			
Toluene	10.4	1.0	µg/L	10.0		104	70-130			
1,2,3-Trichlorobenzene	9.86	5.0	µg/L	10.0		98.6	70-130			
1,2,4-Trichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
1,3,5-Trichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130			
1,1,1-Trichloroethane	11.2	1.0	µg/L	10.0		112	70-130			
1,1,2-Trichloroethane	11.5	1.0	µg/L	10.0		115	70-130			
Trichloroethylene	11.7	1.0	µg/L	10.0		117	70-130			
Trichlorofluoromethane (Freon 11)	10.1	2.0	µg/L	10.0		101	70-130			
1,2,3-Trichloropropane	11.2	2.0	µg/L	10.0		112	70-130			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B260965 - SW-846 5030B										
LCS (B260965-BS1)										
Prepared & Analyzed: 06/29/20										
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0	1.0	µg/L	10.0		110	70-130			
1,2,4-Trimethylbenzene	9.21	1.0	µg/L	10.0		92.1	70-130			
1,3,5-Trimethylbenzene	9.68	1.0	µg/L	10.0		96.8	70-130			
Vinyl Chloride	9.73	2.0	µg/L	10.0		97.3	40-160			†
m+p Xylene	19.8	2.0	µg/L	20.0		98.8	70-130			
o-Xylene	9.66	1.0	µg/L	10.0		96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.8		µg/L	25.0		99.0	70-130			
Surrogate: Toluene-d8	26.2		µg/L	25.0		105	70-130			
Surrogate: 4-Bromofluorobenzene	26.0		µg/L	25.0		104	70-130			
LCS Dup (B260965-BSD1)										
Prepared & Analyzed: 06/29/20										
Acetone	101	50	µg/L	100		101	70-160	3.48	25	†
Acrylonitrile	10.4	5.0	µg/L	10.0		104	70-130	2.44	25	
tert-Amyl Methyl Ether (TAME)	9.33	0.50	µg/L	10.0		93.3	70-130	7.03	25	
Benzene	9.75	1.0	µg/L	10.0		97.5	70-130	4.22	25	
Bromobenzene	9.73	1.0	µg/L	10.0		97.3	70-130	4.23	25	
Bromochloromethane	12.1	1.0	µg/L	10.0		121	70-130	3.26	25	V-20
Bromodichloromethane	11.5	0.50	µg/L	10.0		115	70-130	1.30	25	
Bromoform	9.90	1.0	µg/L	10.0		99.0	70-130	1.80	25	
Bromomethane	12.7	2.0	µg/L	10.0		127	40-160	1.51	25	V-20, V-34 †
2-Butanone (MEK)	96.6	20	µg/L	100		96.6	40-160	2.28	25	†
tert-Butyl Alcohol (TBA)	97.3	20	µg/L	100		97.3	40-160	3.60	25	†
n-Butylbenzene	8.78	1.0	µg/L	10.0		87.8	70-130	2.81	25	
sec-Butylbenzene	8.82	1.0	µg/L	10.0		88.2	70-130	2.46	25	
tert-Butylbenzene	9.35	1.0	µg/L	10.0		93.5	70-130	3.98	25	
tert-Butyl Ethyl Ether (TBEE)	10.0	0.50	µg/L	10.0		100	70-130	3.24	25	
Carbon Disulfide	92.9	5.0	µg/L	100		92.9	70-130	12.9	25	
Carbon Tetrachloride	10.2	5.0	µg/L	10.0		102	70-130	1.95	25	
Chlorobenzene	9.45	1.0	µg/L	10.0		94.5	70-130	3.84	25	
Chlorodibromomethane	11.2	0.50	µg/L	10.0		112	70-130	1.94	25	
Chloroethane	9.24	2.0	µg/L	10.0		92.4	70-130	6.59	25	
Chloroform	10.6	2.0	µg/L	10.0		106	70-130	2.52	25	
Chloromethane	6.41	2.0	µg/L	10.0		64.1	40-160	2.62	25	V-05, V-34 †
2-Chlorotoluene	9.33	1.0	µg/L	10.0		93.3	70-130	0.321	25	
4-Chlorotoluene	9.39	1.0	µg/L	10.0		93.9	70-130	3.86	25	
1,2-Dibromo-3-chloropropane (DBCP)	9.11	5.0	µg/L	10.0		91.1	70-130	8.91	25	
1,2-Dibromoethane (EDB)	11.4	0.50	µg/L	10.0		114	70-130	1.99	25	
Dibromomethane	11.4	1.0	µg/L	10.0		114	70-130	3.97	25	
1,2-Dichlorobenzene	9.36	1.0	µg/L	10.0		93.6	70-130	3.88	25	
1,3-Dichlorobenzene	9.27	1.0	µg/L	10.0		92.7	70-130	3.29	25	
1,4-Dichlorobenzene	9.17	1.0	µg/L	10.0		91.7	70-130	4.48	25	
trans-1,4-Dichloro-2-butene	8.88	2.0	µg/L	10.0		88.8	70-130	6.11	25	
Dichlorodifluoromethane (Freon 12)	9.92	2.0	µg/L	10.0		99.2	40-160	11.0	25	†
1,1-Dichloroethane	10.0	1.0	µg/L	10.0		100	70-130	4.96	25	
1,2-Dichloroethane	11.8	1.0	µg/L	10.0		118	70-130	2.60	25	
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	4.53	25	
cis-1,2-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	5.41	25	
trans-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130	5.45	25	
1,2-Dichloropropane	10.9	1.0	µg/L	10.0		109	70-130	0.276	25	
1,3-Dichloropropane	11.1	0.50	µg/L	10.0		111	70-130	0.0900	25	
2,2-Dichloropropane	9.30	1.0	µg/L	10.0		93.0	40-130	11.4	25	†
1,1-Dichloropropene	10.3	2.0	µg/L	10.0		103	70-130	4.66	25	

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B260965 - SW-846 5030B										
LCS Dup (B260965-BSD1)				Prepared & Analyzed: 06/29/20						
cis-1,3-Dichloropropene	10.6	0.50	µg/L	10.0		106	70-130	2.60	25	
trans-1,3-Dichloropropene	10.4	0.50	µg/L	10.0		104	70-130	2.92	25	
Diethyl Ether	9.84	2.0	µg/L	10.0		98.4	70-130	3.98	25	
Diisopropyl Ether (DIPE)	9.76	0.50	µg/L	10.0		97.6	70-130	3.52	25	
1,4-Dioxane	111	50	µg/L	100		111	40-130	1.66	50	† ‡
Ethylbenzene	9.27	1.0	µg/L	10.0		92.7	70-130	1.39	25	
Hexachlorobutadiene	11.2	0.60	µg/L	10.0		112	70-130	1.16	25	
2-Hexanone (MBK)	105	10	µg/L	100		105	70-160	0.965	25	†
Isopropylbenzene (Cumene)	9.39	1.0	µg/L	10.0		93.9	70-130	2.21	25	
p-Isopropyltoluene (p-Cymene)	9.35	1.0	µg/L	10.0		93.5	70-130	3.26	25	
Methyl Acetate	9.83	1.0	µg/L	10.0		98.3	70-130	3.79	25	
Methyl tert-Butyl Ether (MTBE)	10.0	1.0	µg/L	10.0		100	70-130	2.56	25	
Methyl Cyclohexane	10.8	1.0	µg/L	10.0		108	70-130	0.918	25	
Methylene Chloride	9.69	5.0	µg/L	10.0		96.9	70-130	6.49	25	
4-Methyl-2-pentanone (MIBK)	109	10	µg/L	100		109	70-160	0.415	25	†
Naphthalene	8.94	2.0	µg/L	10.0		89.4	40-130	1.88	25	†
n-Propylbenzene	9.17	1.0	µg/L	10.0		91.7	70-130	2.80	25	
Styrene	9.35	1.0	µg/L	10.0		93.5	70-130	3.36	25	
1,1,1,2-Tetrachloroethane	9.99	1.0	µg/L	10.0		99.9	70-130	2.28	25	
1,1,2,2-Tetrachloroethane	9.73	0.50	µg/L	10.0		97.3	70-130	2.84	25	
Tetrachloroethylene	11.6	1.0	µg/L	10.0		116	70-130	2.96	25	V-20
Tetrahydrofuran	9.05	10	µg/L	10.0		90.5	70-130	12.4	25	
Toluene	10.1	1.0	µg/L	10.0		101	70-130	2.73	25	
1,2,3-Trichlorobenzene	9.73	5.0	µg/L	10.0		97.3	70-130	1.33	25	
1,2,4-Trichlorobenzene	9.86	1.0	µg/L	10.0		98.6	70-130	4.37	25	
1,3,5-Trichlorobenzene	9.50	1.0	µg/L	10.0		95.0	70-130	6.02	25	
1,1,1-Trichloroethane	10.8	1.0	µg/L	10.0		108	70-130	4.19	25	
1,1,2-Trichloroethane	11.4	1.0	µg/L	10.0		114	70-130	0.697	25	
Trichloroethylene	11.5	1.0	µg/L	10.0		115	70-130	2.07	25	
Trichlorofluoromethane (Freon 11)	10.1	2.0	µg/L	10.0		101	70-130	0.00	25	
1,2,3-Trichloropropane	10.7	2.0	µg/L	10.0		107	70-130	4.56	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.4	1.0	µg/L	10.0		104	70-130	6.17	25	
1,2,4-Trimethylbenzene	9.02	1.0	µg/L	10.0		90.2	70-130	2.08	25	
1,3,5-Trimethylbenzene	9.39	1.0	µg/L	10.0		93.9	70-130	3.04	25	
Vinyl Chloride	9.23	2.0	µg/L	10.0		92.3	40-160	5.27	25	†
m+p Xylene	19.2	2.0	µg/L	20.0		95.8	70-130	2.98	25	
o-Xylene	9.50	1.0	µg/L	10.0		95.0	70-130	1.67	25	
Surrogate: 1,2-Dichloroethane-d4	23.7		µg/L	25.0		94.8	70-130			
Surrogate: Toluene-d8	26.6		µg/L	25.0		106	70-130			
Surrogate: 4-Bromofluorobenzene	26.7		µg/L	25.0		107	70-130			

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QUALITY CONTROL
Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B260944 - SW-846 3510C
Blank (B260944-BLK1)

Prepared: 06/29/20 Analyzed: 06/30/20

Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	1.02		µg/L	2.00		51.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.10		µg/L	2.00		54.8	30-150			
Surrogate: Tetrachloro-m-xylene	1.67		µg/L	2.00		83.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.79		µg/L	2.00		89.5	30-150			

LCS (B260944-BS1)

Prepared: 06/29/20 Analyzed: 06/30/20

Aroclor-1016	0.43	0.20	µg/L	0.500		85.4	40-140			
Aroclor-1016 [2C]	0.46	0.20	µg/L	0.500		91.0	40-140			
Aroclor-1260	0.35	0.20	µg/L	0.500		70.7	40-140			
Aroclor-1260 [2C]	0.38	0.20	µg/L	0.500		75.1	40-140			
Surrogate: Decachlorobiphenyl	0.696		µg/L	2.00		34.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.753		µg/L	2.00		37.7	30-150			
Surrogate: Tetrachloro-m-xylene	1.56		µg/L	2.00		78.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.67		µg/L	2.00		83.7	30-150			

LCS Dup (B260944-BSD1)

Prepared: 06/29/20 Analyzed: 06/30/20

Aroclor-1016	0.47	0.20	µg/L	0.500		94.2	40-140	9.76	20	
Aroclor-1016 [2C]	0.50	0.20	µg/L	0.500		101	40-140	10.1	20	
Aroclor-1260	0.39	0.20	µg/L	0.500		78.4	40-140	10.3	20	
Aroclor-1260 [2C]	0.41	0.20	µg/L	0.500		82.4	40-140	9.27	20	
Surrogate: Decachlorobiphenyl	0.763		µg/L	2.00		38.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.824		µg/L	2.00		41.2	30-150			
Surrogate: Tetrachloro-m-xylene	1.70		µg/L	2.00		85.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.82		µg/L	2.00		91.0	30-150			

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QUALITY CONTROL
Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B260935 - SW-846 3510C
Blank (B260935-BLK1)

Prepared & Analyzed: 06/29/20

TPH (C9-C36)	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0661		mg/L	0.100		66.1	40-140			

LCS (B260935-BS1)

Prepared & Analyzed: 06/29/20

TPH (C9-C36)	0.663	0.20	mg/L	1.00		66.3	40-140			
Surrogate: 2-Fluorobiphenyl	0.0718		mg/L	0.100		71.8	40-140			

LCS Dup (B260935-BSD1)

Prepared & Analyzed: 06/29/20

TPH (C9-C36)	0.708	0.20	mg/L	1.00		70.8	40-140	6.62	30	
Surrogate: 2-Fluorobiphenyl	0.0806		mg/L	0.100		80.6	40-140			

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B260975 - SW-846 3005A
Blank (B260975-BLK1)

Prepared: 06/29/20 Analyzed: 06/30/20

Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							

LCS (B260975-BS1)

Prepared: 06/29/20 Analyzed: 06/30/20

Arsenic	501	8.0	µg/L	500		100	80-120			
Barium	467	100	µg/L	500		93.3	80-120			
Cadmium	462	2.0	µg/L	500		92.5	80-120			
Chromium	485	10	µg/L	500		97.0	80-120			
Lead	484	5.0	µg/L	500		96.8	80-120			
Selenium	491	50	µg/L	500		98.1	80-120			
Silver	487	2.0	µg/L	500		97.4	80-120			

LCS Dup (B260975-BSD1)

Prepared: 06/29/20 Analyzed: 06/30/20

Arsenic	508	8.0	µg/L	500		102	80-120	1.40	20	
Barium	470	100	µg/L	500		94.1	80-120	0.799	20	
Cadmium	466	2.0	µg/L	500		93.2	80-120	0.773	20	
Chromium	481	10	µg/L	500		96.2	80-120	0.906	20	
Lead	481	5.0	µg/L	500		96.1	80-120	0.656	20	
Selenium	498	50	µg/L	500		99.6	80-120	1.44	20	
Silver	494	2.0	µg/L	500		98.9	80-120	1.50	20	

Batch B260977 - SW-846 7470A Prep
Blank (B260977-BLK1)

Prepared: 06/29/20 Analyzed: 06/30/20

Mercury	ND	0.00010	mg/L							
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LCS (B260977-BS1)

Prepared: 06/29/20 Analyzed: 06/30/20

Mercury	0.00388	0.00010	mg/L	0.00400		97.1	80-120			
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LCS Dup (B260977-BSD1)

Prepared: 06/29/20 Analyzed: 06/30/20

Mercury	0.00393	0.00010	mg/L	0.00400		98.3	80-120	1.23	20	
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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B261076 - SW-846 1010A
Blank (B261076-BLK1)

Prepared & Analyzed: 06/30/20

Flashpoint	> 212 °F		°F							
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LCS (B261076-BS1)

Prepared & Analyzed: 06/30/20

Flashpoint	81		°F	81.0		99.9	98.8-101			
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LCS Dup (B261076-BSD1)

Prepared & Analyzed: 06/30/20

Flashpoint	81		°F	81.0		99.9	98.8-101	0.00	5	
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B260944-BS1 Date(s) Analyzed: 06/30/2020 06/30/2020

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.43	
	2	0.000	0.000	0.000	0.46	6.7
Aroclor-1260	1	0.000	0.000	0.000	0.35	
	2	0.000	0.000	0.000	0.38	8.2

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**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES***SW-846 8082A***LCS Dup**

Lab Sample ID: B260944-BSD1 Date(s) Analyzed: 06/30/2020 06/30/2020
Instrument ID (1): ECD10 Instrument ID (2): ECD10
GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.47	
	2	0.000	0.000	0.000	0.50	6.2
Aroclor-1260	1	0.000	0.000	0.000	0.39	
	2	0.000	0.000	0.000	0.41	5.0

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
PR-03	Sample preserved in the laboratory, not in the field as required by the method.
RL-14	Elevated reporting limit due to foaming sample matrix. MA CAM reporting limit not met.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 6020B in Water</i>	
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
<i>SW-846 7470A in Water</i>	
Mercury	CT,NH,NY,NC,ME,VA
<i>SW-846 8082A in Soil</i>	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
<i>SW-846 8082A in Water</i>	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8082A in Water</i>	
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
<i>SW-846 8260C-D in Water</i>	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C-D in Water</i>	
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples _____



con-test®
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client BEC

Received By gga

Date 6/20/20

Time 1830

How were the samples received?

In Cooler T

No Cooler _____

On Ice T

No Ice _____

Direct from Sampling _____

Ambient _____

Melted Ice _____

By Gun # 5

Actual Temp -3.0

Were samples within Temperature? 2-6°C T

By Blank # _____

Actual Temp - _____

Was Custody Seal Intact? n/a

Were Samples Tampered with? n/a

Was COC Relinquished? T

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all pertinent Information? Client T

Analysis T

Sampler Name T

Project T

ID's T

Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? T

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? n/a

Proper Media/Containers Used? T

Were trip blanks received? F

Do all samples have the proper pH? _____

Who was notified? _____

Who was notified? Erica

Who was notified? _____

MS/MSD? F

Is splitting samples required? F

On COC? F

Acid n/a

Base n/a

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	<u>4</u>
HCL-		500 mL Amb.		500 mL Plastic	<u>2</u>	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments: